



To: Executive Councillor for Environmental and Waste Services: Councillor Jean Swanson
Report by: Waste Strategy Manager - Jen Robertson
Relevant scrutiny committee: Environment Scrutiny Committee 4/10/2011
Wards affected: All Wards

BEYOND 45% RECYCLING Key Decision

1. Executive summary

1.1 The main aims of this report are to:

- Take stock of Cambridge City Council's past and present recycling performance compared to similar authorities within the council's Nearest Neighbour Group.
- Recommend ways forward for the short term
- Suggest initiatives that need further information and investigation for the longer term

1.2 Recycling continues to be a Council priority for environmental, legal and financial reasons. Current recycling performance is assessed against comparable authorities and found to be good. However, further improvements are required in order to meet locally set stretch targets and National Government targets.

1.3 Presently insufficient data is available about the variation in numbers of those who do and do not recycle within the city and why. Collecting this data is essential in order to make decisions about the most effective use of resources.

1.4 The Council provides comprehensive recycling services with batteries being the latest addition (introduced in June 2011) to the range of materials being collected at kerbside. A few potential materials are not yet included and it is unrealistic to expect that significant improvements in recycling rates can be made simply by including these due to their lightweight nature. It is believed that the way forward is to increase the extent to which residents use existing services.

- 1.5 Further work on this is needed to establish why some residents are not recycling, which recyclable materials are being put in the black bins, and what new initiatives will offer increased recycling rates in the most cost effective way, providing carbon savings and improved customer satisfaction.
- 1.6 Possible options to be studied are:
- Incentive schemes
 - Compulsory recycling
 - Weekly food waste collection
 - Use of data from new IT systems
 - Enhanced communications

However this work needs to be informed by data about the current state of affairs so that efforts can be channelled into the most effective initiatives.

- 1.7 Authorities that have made significant improvements in a short time have generally changed several things at once. It is therefore difficult to extrapolate data from their experience in order to predict the likely impact of a single new initiative in Cambridge. However, research¹ shows that face to face contact increases participation rates by 2-3%. At present we do not know what our current participation rate is across the city.

2. Recommendations

The Executive Councillor is recommended:

- 2.1 To agree:
- A Waste Compositional Analysis to be carried out with sampling taking place in spring/summer and autumn/winter
 - Participation monitoring work to be carried out
 - A residents survey to be carried out to establish who recycles, why residents recycle and what would help residents to recycle more.
- 2.2 To agree that officers prepare an action plan to increase the recycling rate to 50-55% by 2015/16, based on information gathered from 2.1 above (with an average target increase of 2% per year).
- 2.3 To agree the proposed refinements to the existing service listed at 3.29.

¹ Cambridgeshire and Peterborough Waste Partnership LPA Doorstepping Campaign 2009/10 by Waste Watch July 2010
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3. Background

Past and present performance and services

3.1 Cambridge City Council's recycling rate for 2010/11 was 43.7%. The table below gives some further detail and includes the national recycling rate for comparison.

Year	Dry recycling (tonnes)	Composting (tonnes)	Overall recycling rate	National recycling rate
2009/10	17.93 (7,758)	22.91% (9,910)	40.84%	39.7%
2010/11	21.39 (9,472)	22.32% (9,885)	43.7%	40.3%

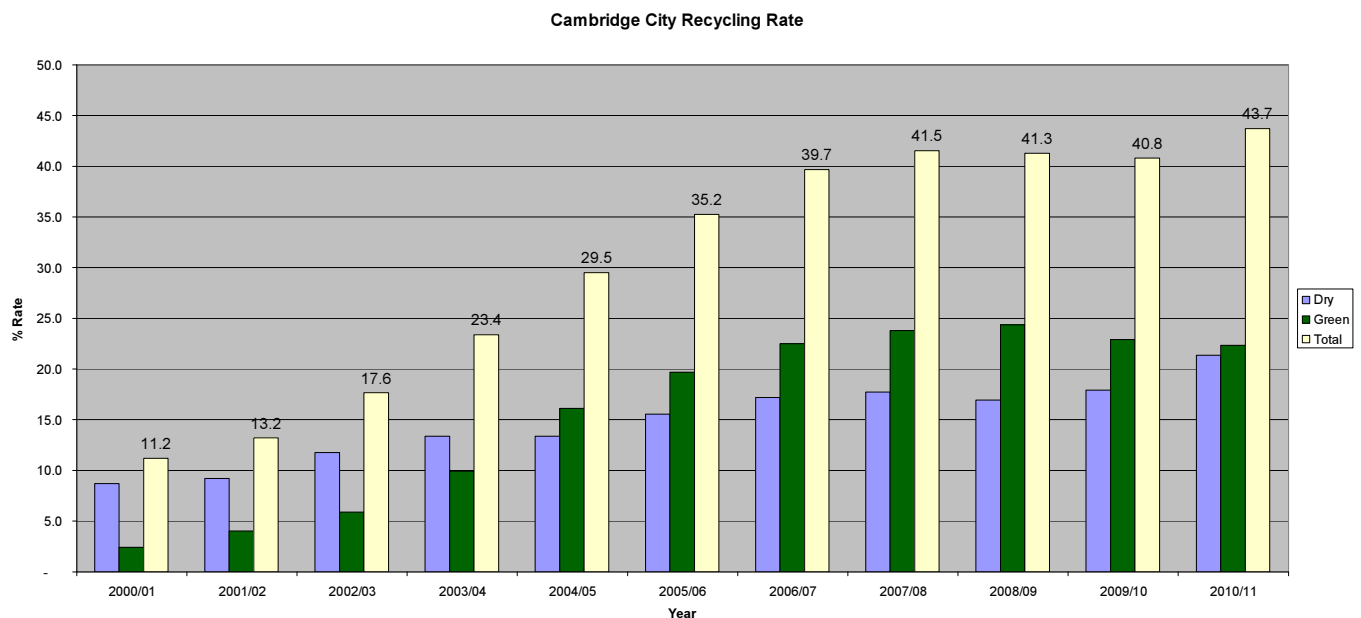


Figure 1 – Cambridge City Council's recycling rate 2000/01 to 2010/11

3.2 For 2010/11 the remaining 56.3% (24,929 tonnes) was sent to the Mechanical Biological Treatment facility at Waterbeach. Figure 1 shows the increase in total recycling rate over the last 10 years. In 2010/11 the city was ranked 110 out of 320 Waste Collection Authorities (WCA) from the data submitted to the national waste database, Waste Data Flow (WDF). The council is predicting a recycling rate of 45% in 2011/12.

3.3 The gradual but steady increase reflected in Figure 1 has been brought about through various infrastructure changes over the last 10 years culminating in the change to blue bins in November 2009. This change was designed to encourage residents to recycle by providing easier to use services that enable residents to place all their recycling in one bin and provide extra capacity to recycle more. This initiative

has generally been well received by residents.

- 3.4 Total waste arisings have declined steadily since 2002/03 with the exception of a small increase last year, notwithstanding an increase of approximately 10% in the number of households over the last 10 years.
- 3.5 During 2010/11, 1,208 tonnes of recyclate was collected from the 23 public recycling points around the city. This is less than the 2009/10 figure of 1,860 tonnes. It is felt that this reflects the popularity of the new blue bin scheme, which provides extra capacity and the ability to recycle more materials (e.g. cartons) at home. The recycling points (see Appendix A for list of sites) supplement the kerbside provision in two important ways:
- Some residents prefer to recycle in this way
 - They provide a collection of other materials that we are not able to collect at the kerbside, eg: textiles, shoes and small electrical items. The intention is to increase the number of sites with this extended range of materials over the coming year to capture as much of these additional materials as possible.
- 3.6 Fifteen litter recycling sites have been installed over the last 2 years, both in the city centre and in parks and open spaces. In 2010/11 we landfilled 2,665 tonnes of street sweepings and litter. Streets and Open Spaces are currently looking at ways in which litter recycling can be increased in the city.
- 3.7 The city council also offers a commercial waste recycling service for business premises, which is growing.

Targets for the future

- 3.8 The Waste (England and Wales) Regulations 2011, which transpose the revised EU Waste Framework Directive, stipulate that by 2020 50% of household waste is to be recycled.

The RECAP Joint Municipal Waste Management Strategy includes a voluntary target of recycling or composting 50 – 55% by 2015/16 and 55 – 60% by 2020/21 for the partnership area.

Cambridge City Council targets have been set based on the small incremental increases shown in the graph above. For 2012/13 it is set at 48% (24% for dry recycling and 24% for composting).

- 3.9 It is timely to now consider what the next steps should be with reference to the national picture and other councils that are similar to

Cambridge.

- 3.10 Cambridge City has a high percentage of residents living in flats, plus significant numbers of transient residents including approximately 26,000 students plus migrant workers many of whom live in Houses of Multiple Occupation (HMO's). From June 2009 to June 2010 internal inflow of people in Cambridge was 12,500 and the outflow was 13,700. The 2001 Census showed that 13,803 people lived in communal establishments. There are 11,479 flats (maisonettes or apartments) in the city. This is 26.9% of the total number of properties. The city also has a highly diverse population with a high percentage of residents for whom English may not be their first language.
- 3.11 Research² has shown that areas with high population densities and high rates of population flux have lower recycling rates. The council has invested in communal bins for recycling at existing flats in the city. This work is now close to completion after 2 years of rolling out bespoke services. All new flats have provision for recycling planned in from the beginning with large blue and green bins installed.
- 3.12 However, there are issues around communal provision for flats including HMOs, with generally reduced levels of participation and increased levels of contamination. This research also shows that to increase recycling in these areas requires targeted and regular communication campaigns particularly for university students.

High performing authorities

- 3.13 Certain WCA are achieving very high recycling rates of over 60%. These rates are beginning to match some of the high performing European countries. For example Flanders (one of 3 regions in Belgium) has a recycling rate of 72% in rural areas and over 60% in urban areas. However, the high performing local authorities in this country tend to have different demographics and different housing types to Cambridge.
- 3.14 For example South Oxfordshire District Council (SODC) is reporting a rate of 65% for 2010/11, but is a predominantly rural area with small proportions of flats and transience. They introduced significant changes to services in June 2009 which included moving to an alternate week collection of refuse and recycling, a weekly food waste collection and 2 wheelie bins across the district. They also provide an opt-in chargeable green waste collection, which has been taken up by 33% of residents. Refuse is collected in a 180 litre bin and dry recycling in a 240 litre bin. In the first year of operating 6,115 tonnes

² International recycling experience for multi-occupancy households - November 2010 – SITA UK
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of food waste was collected. SODC emphasise the importance of good communication with residents. They employed consultants and won an award for this communications programme. Their dry recycling rate for 2010/11 was 35.23% and the composting rate was 29.7%. This roll out increased their recycling rate from 42.45% in 2008/09 to 65% 2 years later.

3.15 In order to eliminate or reduce some of these variables it is more useful to make comparisons with our Nearest Neighbour (NN) group of authorities as set out by CIPFA (Chartered Institute of Public Finance and Accountancy). These authorities are grouped together because they are similar across a wide range of socio economic indicators.

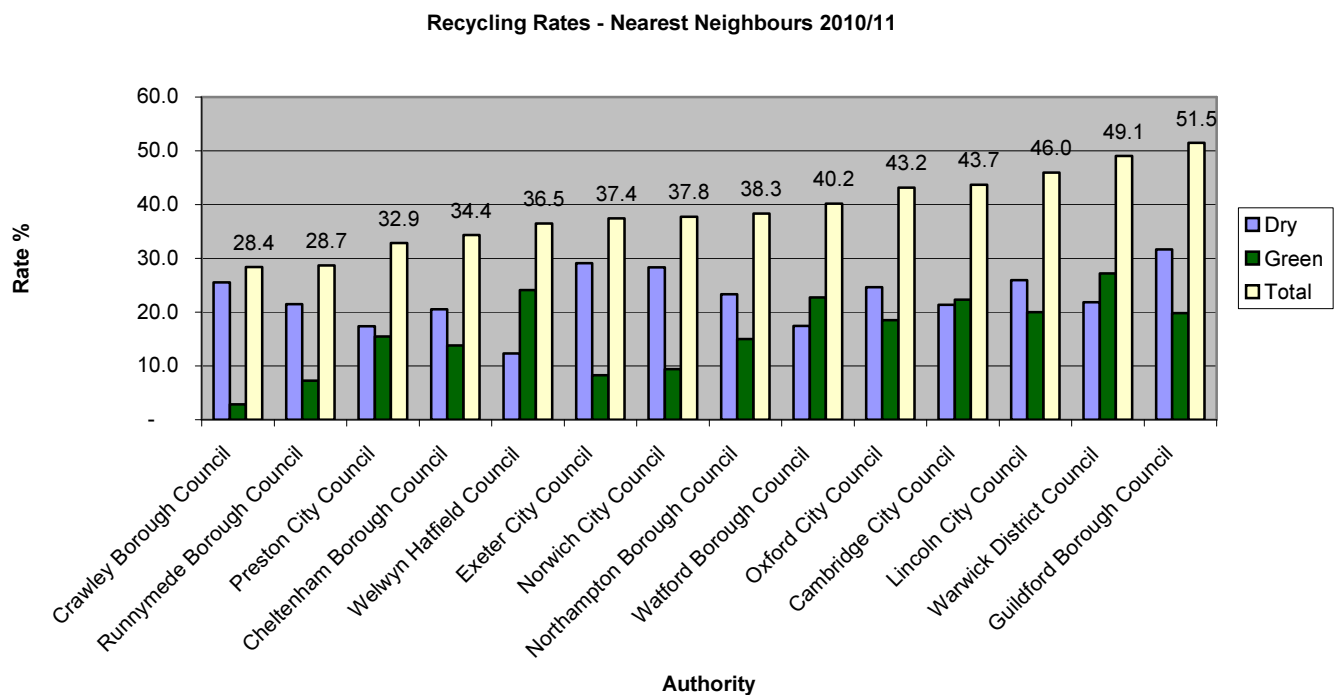


Figure 2 - Recycling Rates for Nearest Neighbour group 2010/11

3.16 Figure 2 above shows Cambridge City is fourth highest for its composting rate and overall recycling rate and tenth for its dry recycling rate. This shows that there is greater scope for improvement within the dry recycling scheme, although all aspects including waste prevention should be considered.

3.17 Figure 3 below shows the residual household waste figures (NI 191) for Cambridge City and demonstrates a steady decline on the amount of material sent to landfill.

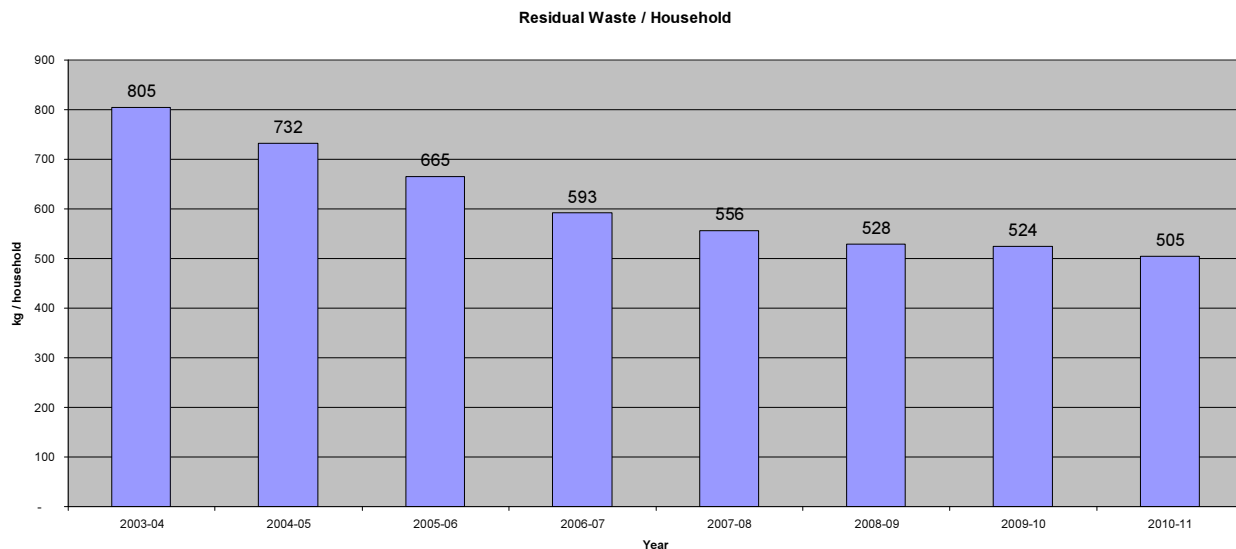


Figure 3 Cambridge City Council – NI 191 kg of Residual waste per household for 2003/4-2010/11

3.18 Figure 4 below is a comparison with the authorities in our NN group and shows that for 2010/11 we are in the middle of the group with a residual waste figure of 505 kg per household. The range is from 653 kg for Welwyn and Hatfield to 391 kg for Guildford Borough Council. This demonstrates again that we could be diverting more material for recycling.

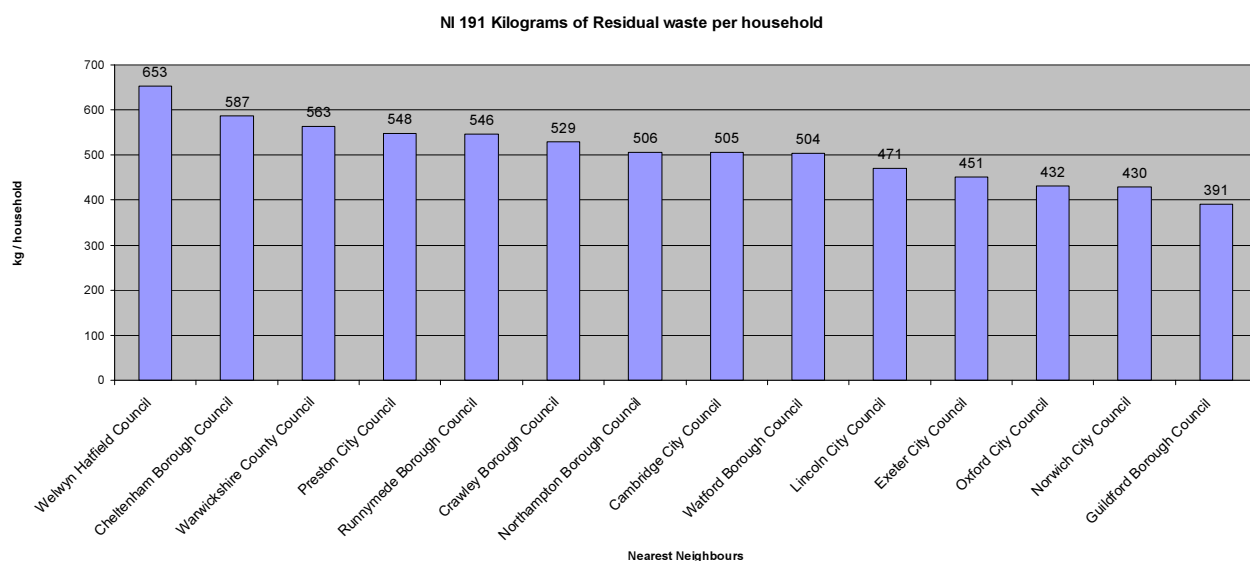


Figure 4 NI 191 kg of Residual Waste per household for Nearest Neighbour Group 2010/11

3.19 Guildford BC is the highest performing council in the NN group with an overall rate of 51.5%. They are also the highest for their dry recycling with 31.7%. Although their dry recycling collection system differs from ours in that they have a weekly box collection, it does demonstrate what can be achieved from dry recycling and what we should be aiming for. The materials collected are very similar to ours.

- 3.20 Exeter has the next highest dry recycling rate with 29.1%. Oxford City, although performing less well overall than Cambridge, has a slightly higher dry recycling rate than us at 24.6%. Both these authorities are university cities with transient people and high density housing areas. They also have very similar schemes to us. Again these examples demonstrate that we should be able to achieve more through our blue bin scheme.
- 3.21 Within Cambridgeshire, Huntingdonshire DC has the highest overall recycling rate with 57.8% and a dry recycling rate of 26.7%.
- 3.22 Between April and July 2010 participation monitoring was carried out on one collection round in the city that was identified as potentially being able to increase recycling. This was done before and after a door-knocking campaign, which covered this area plus 3 other collection rounds, to directly speak to and educate residents about the use of blue and green bins. In total, 2,801 residents were spoken to directly out of the 3,936 properties contacted.
- 3.23 The participation monitoring prior to the door-knocking campaign demonstrated a participation rate in the blue bin recycling service of 88.7% and a rate of 84.3% in the green bin recycling service. Participation in the blue bin recycling service increased by 2.9% to 91.6% after the door-knocking campaign, while participation in the green bin recycling service increased by 3.2% to 87.5%. Analysis of tonnes collected at the time showed an overall increase in both the blue and green bins of 15 tonnes across the chosen rounds during the two months of the door-knocking.
- 3.24 This work provided some useful information and has influenced some promotions including work done by our volunteer recycling champions. However, it was a relatively small sample and more representative data is required to extrapolate figures for the city as a whole.

Proposals for the Future

- 3.25 Comparing our figures with those in our Nearest Neighbour group, Cambridge is performing well overall. However, the above demonstrates we can achieve more dry recycling in order to increase our diversion rate and meet our targets. Compared to many high performing authorities we have very similar schemes apart from the fact that around 74 local authorities in England are either offering or plan to offer separate weekly food waste collections. In Cambridge food waste is collected in the green bin on a fortnightly basis. This material is sent to an In-Vessel Composting (IVC) facility. A waste analysis carried out in 2007 showed that 31% of the contents of the black bin was made up of food waste at that time. However, the

amount captured in the green bin, although low, was higher in Cambridge than for the other districts in Cambridgeshire. It is important to carry out a new waste analysis before considering introducing any more changes to existing services, as the composition of waste in the black bins is likely to have changed significantly in the past 4 years.

- 3.26 It is also important to note that the contract with Viridor for the bulking, transporting and sorting of the blue bin material includes a wide range of materials but does not include polypropylene or polystyrene (plastic pots, tubs and trays). Banks at the main recycling points have recently been provided for this material and are being well used by residents (they are emptied weekly with 261 kg collected in the first 2 months). The Materials Recycling Facility (MRF) contract runs until November 2014 and the intention is to include this material within the new contract. In the meantime negotiations are taking place with Viridor to ascertain the feasibility and impact on the current contract of including these materials in the blue bin
- 3.27 To increase our recycling rate in the city, further information needs to be gathered about participation rates and waste composition to find out what is being recycled or composted and what is remaining in the black bins that could be recycled through our existing schemes. Participation monitoring work needs to be done over a six week period and waste compositional analysis work needs to be carried out on a minimum of two separate occasions. A resident survey conducted in low performing areas would also help find out who is not recycling and why. It could also identify what residents feel would encourage participation.
- 3.28 Depending on the results of these studies, we will need to consider a range of initiatives, which would be likely to require significant investment. These should include evaluating authorities which
- Have introduced incentive schemes e.g. Royal Borough of Windsor and Maidenhead. Birmingham City Council has also introduced an incentive scheme in partnership with Nectar. These schemes are based on rewarding either individuals or communities for adopting positive recycling behaviour. Rewards can be in the form of vouchers, donations to charities or local groups, points that can be redeemed at local facilities (possibly linked to council facilities), or discounts on goods or services.
 - Have introduced compulsory recycling e.g. London Borough of Barnet (Mar 2005), Bromley (Apr 2006, and reported a dry recycling rate of 28.3% in 2009/10) and Lambeth BC (Apr 2011). This approach focuses on the fact that legally under the Environmental Protection Act 1990 residents are required to

recycle. Barnet does not allow residents to put glass, paper or cans in their black refuse bin. This does not apply to flats. Residents who persistently and deliberately fail to recycle receive warnings and formal notices. As a last resort the council can prosecute persistent offenders.

- Are providing a weekly food waste collection. This could be done in Cambridge by providing a food waste collection for the week when the green bin is not being emptied. A pilot scheme should be considered first in order to explore the best way of gaining the most food waste.
- Have invested in IT systems that provide real time data from collection vehicles resulting in improved reporting and better information to customers. In-cab technology enables drivers to report issues that can then be picked up straight away by Customer Service staff. These systems can also be used to target promotions, for example by automatically generating letters to residents who are not recycling.
- Have been recognised for delivering best practice communications and the impact these have had on recycling rates. Hull City Council received the Communications Campaign of the Year award last year from CIWM's (Chartered Institute of Wastes Management) Awards for Excellence for their communications programme, which was geared to increasing their recycling rate. Their budget was £180,000, a high proportion of which was spent on a door-knocking exercise to educate residents and improve participation through face to face contact. The dry recycling rate went from 20.16% in 2008/09 to 32% in 2010/11. However, it is important to note that in the same period they also changed their collection arrangements. 94% of residents recorded an increase in recycling as a result of the communications campaign together with the new recycling initiative.

Refinements to current service

3.29 Smaller initiatives which officers suggest should be pursued now and for which committee approval is sought are:

- Removing restrictions on the provision of extra/second green bins.
- Continuing to promote the use of smaller refuse bins
- Promoting the option of having more than one blue bin
- Continuing the recycling champions scheme, which provides important face to face support for and encouragement to residents. This programme has been highly successful and now has 75 volunteers signed up to the scheme. Some volunteers are very active and have for example, attended events to promote recycling, run events with the help of the recycling champions coordinator and delivered leaflets. A Recycling Champions Group has been established in the north of the city and meets on a monthly basis to

organise events, share knowledge and decide on future local initiatives. This is invaluable work and needs to be built on across the city. Research shows that face to face contact has a real impact in terms of changing people's behaviour.

- Promoting new bring banks and extending the provision for recently introduced materials (eg small WEEE, pots, tubs and trays)

4. Implications

(a) Financial Implications

There are no financial implications in the current year as a result of this report. Any budget proposals for 2012/13 and beyond will be considered during the forthcoming budget cycle. Landfill tax, which is a cost to the public purse overall, is £56 per tonne for 2011/12.

In 2010/11 avoiding landfill tax for all the dry recycling tonnage saved £539,904 in landfill tax alone. This excludes the gate fee costs. The tax is rising by £8 each year up to 2014/15 when it will be £80.

At the current rate a 1% increase in dry recycling saves the County Council £25,000 of landfill tax. At present the recycling credit paid by the county council for waste diverted from landfill is £38.65 per tonne, which for a 1% increase in dry recycling would generate an extra income of £17,100. Any increase in recycling will result in additional income for the material from our contractors. We do not receive recycling credits for green waste as this material is composted through a county council contract with AmeyCespa (formally Donarbon) at Waterbeach.

(b) Staffing Implications

There are no staffing implications.

(c) Equal Opportunities Implications

An Equality Impact Assessment has not been carried out as no decisions have been made yet as to which changes will be implemented. This will be done once it is decided what policy changes and service changes are required.

(d) Environmental Implications

Increasing recycling rates has environmental benefits and is more carbon efficient than landfilling. There are no specific carbon savings at present, as these recommendations are not making substantial changes to the service. However, the proposals made at 3.27 will have a low positive impact (+L). For common household waste

streams such as paper, glass and metal, recycling incurs lower environmental costs than production from virgin materials.

(e) **Consultation**

Consultation with members of the public would be carried out if service changes were being considered in order to ascertain which options were most acceptable to residents. Until data is gathered and direction agreed no consultation will take place.

(f) **Community Safety**

There are no community safety implications.

5. Background papers

These background papers were used in the preparation of this report:

Environment Scrutiny Committee Report - Proposed changes to Dry Recycling Service – 13/1/09

Government Review of Waste Policy England 2011

6. Appendices

Appendix A - List of Recycling Points and the materials collected at each point

7. Inspection of papers

To inspect the background papers or if you have a query on the report please contact:

Author's Name: Jen Robertson
Author's Phone Number: 01223 - 458225
Author's Email: jen.robertson@cambridge.gov.uk